Stop

Page 1

Start Date: 5/05/14 Required Date: 5/05/14

Gh Lug

Start Qty: 16.00 Req'd Qty: 16.00 *16* *16*

Cust Item ID:

Customer:

Reference:

Revision ID:

Item Name:

Approvals:	Process Plan: AALT	Date: 14-05-07	Tooling:	Date:	Run	Start	*NR1
• •						Stop	
	OC:	Date•	SPC (V/N).	Data		_	** I D O

QC		_ Date:	$\underline{}$ SPC (1/N): $\underline{}$	D	ate:				* I/J	Hン*
Sequence ID/ Work Center ID	Operation Description		Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr									
D3405	Rev B									
100			0.00							
100 Waterjet FLOW CNC Waterjet	FLOW WATER JET Memo 1-Cut as pe	r Dwg D3405	0.00				16_	0		Jm14-05-10
304.125	Dwg Rev:_ Prog Rev:_ 2-Deburr if	<u>B</u>								
110	QC2- Inspect parts off n	nachine FAI/FAIB	0.00							
110 QC Quality Control	Мето		0.00	·			16	_		JM1405-10
			DAS							

120

120 QC

Quality Control

QC8- Inspect parts - second check

Memo

0.00

0.00

27

DQA:			Date:										"DART
0.4.611			D-+			WORK ORDER NON-	-CC	ONFO	RMANCE / UPDATE	14/	ork Order up	odata only	AEROSPACE 1
QA Closed:			Date:				_			VV	ork Order up	date only 1	
Work Orde	er:					DISPOSITION			AGAINS	T DE	PARTMENT	/PROCESS	
Work Oral	-				—	Rework			Skid-tube Crosstube	-	1	Water Jet	Engineering
Part N	lo.					Scrap	1		Machining Small Fal	_	Pro	d. Eng. Coor.	Quality
	•					Use-as-is			noforming Finishin	g	Rec/Sto	re/Packaging	Other
NCR N	No.					Suspected Unapproved	1		Large Fab Composite	₽□		Supplier	
								<u> </u>					
Root					Desci	ription of work order update	١	nitial	Action		Sign &		
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector
Design						•							
Doc/Data													
Equip/Tooling													
Handling/Pre	_												
Material	Щ		ļ '										
Operator													
Offset/Setup	\square						1						
Process													
Supplier													
Training -													
Transport							-						
Unapproved			<u> </u>				<u> </u>	HT CA	I Tegory				
Landi		`~~"				General	FA	ULI CA	IEGORT			•	
Lanui		Bending			Г	Bend		leolio/s	Program	Г	Outside Dim	ensions	Pressure/Forced
•	_	Centre No	at Concer	atric		BOM/Route	-	Grain	TOBIAIII	-	Over/Under	-	Set-up
	-	Cracks	or concer	ILIIC	-	Broken/Damage/Defect	\vdash	Hardwa	are	-	Part Incorre		Temperature/Cure
		Crimp/Kir	nk/Rinnle	/Wave	-	Burrs		1	ion Incomplete/Unqualified	\vdash	Part Lost/Mi		Weld
		Cuffs	,ppic	,		Contamination	\vdash	i '	tions Incomplete/Unclear	\vdash	Part Moved	-	Wrong Stock Pulled
		Crushing			┢─	Countersink	\vdash	4	gned/off center		Positioned V	∟∟ Vrong	
		Heat Trea	ıt			Cut Too Short		Mislab			Power Loss/		Other
	_	Inspection		Tube		Drawing	\vdash	Misrea		<u> </u>	·		±•
	\vdash	Marks/Ch				Drill Holes		Off-set					
		Turning S				Finish	Г	4	Calibration				
		Wave/Tw				Fit/Function		Out of	Sequence				

118929

Page 2

May-06-14 8:0	07:18 AM			" 1 1 6	1.47	9								
tem ID: Revision ID: Item Name:	D3405-043 Gh Lug			Accept	* \	1900	040	100)*	Setup	Start Stop		S1*	
Start Date: Required Date Reference:	5/05/14 e: 5/05/14	Start Qty: 16.00 Req'd Qty: 16.00	*16* *16*			Cust Item I Customer:	D:							
Approvals:	Process Pla	in:	Date:	Tooling:		Da	ite:]	Run	Start	*NI	?1 *	
	QC:		Date:	SPC (Y/N):		Da	ite:				Stop	*NI	32*	
Sequence ID/ Work Center	ID	Operation Description		Set Up/ Run Hours		Tool ID	Tool#	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp	
130 *1 20* Brake NC		NC BRAKE		0.00			DAS 30		16				1419	کر
Brake NC			g DT8204 as per Dwg D340 81 to check if correct formi		-a		9-89			1			u	
40		QC5- Inspect part comple	teness to step on W/O	0.00	2				1.					
140 QC Quality Control		Мето		0.00 H/S	12				16					
									1				Ź	
		Weld per dwg A/R S.S.	rod Batch: <i>M 13 6048</i>	0.00										
150		Large Fab	, <u>, , , , , , , , , , , , , , , , , , </u>						16		A	14-8	1-12	
Large Fab		Memo		0.00							<u>.</u>	-(' '	10	
arge Fab		Weld as per I Identify as D	Dwg D3405 use DT8484 3405-043		ı									

DQA:			Date:										
						WORK ORDER NON-	-CC	ONFO	RMANCE / UPDATE			-	AEROSPACE
QA Closed:			Date:							W	ork Order up	date only	
Work Ord	er:					DISPOSITION			AGAINST	DE	PARTMENT	PROCESS	:
						Rework			Skid-tube Crosstube	Г]	Water Jet	Engineering
Part f	lo.					Scrap			Machining Small Fab		Pro	d. Eng. Coor.	Quality
					-	Use-as-is		Therr	moforming Finishing	:I	Rec/Sto	e/Packaging	Other
NCR I	No.					Suspected Unapproved			Large Fab Composite			Supplier	
Root					Desci	ription of work order update		nitial	Action		Sign &		
Cause		Date	Step	Qty		or non-conformance		ief Eng			Date	Verification	QC Inspector
Design												•	·
Doc/Data													-
Equip/Tooling													
Handling/Pre													
Material						,							
Operator				·		*							
Offset/Setup													
Process		·											·
Supplier									·				
Training		<u> </u>											
Transport									•				
Unapproved							L				<u> </u>		
***							FA	ULT CA	TEGORY				
Landi	ng (1				General	_	1		_	1	. –	-
	ļ	Bending			\vdash	Bend		4	Program	\vdash	Outside Dim	-	Pressure/Forced
		Centre No	ot Concer	ntric	<u> </u>	BOM/Route		Grain		\vdash	Over/Under	<u> </u>	Set-up
	_	Cracks		•	<u> </u>	Broken/Damage/Defect	_	Hardwa		\vdash	Part Incorre	⊢	Temperature/Cure
	_	Crimp/Kir	nk/Ripple	/Wave	_	Burrs		4 '	tion Incomplete/Unqualified	\vdash	Part Lost/M	ssing	Weld
	$\overline{}$	Cuffs			<u> </u>	Contamination	\vdash	4	tions Incomplete/Unclear	\vdash	Part Moved	L.	Wrong Stock Pulled
	-	Crushing			\vdash	Countersink	\vdash	-1	gned/off center	-	Positioned V Power Loss/		Other
	\vdash	Heat Trea		Tulk -	-	Cut Too Short	_	Mislab		L_	Jeower ross/	ouige	Joulei
		Inspection Marks/Ch	•	rupe		Drawing Drill Holes	\vdash	Misrea Off-set				<u>-</u>	
	<u> </u>	Turning S				Finish	\vdash	-	Calibration				
	\vdash	Wave/Tw			-	Fit/Function	\vdash	4	Sequence				
	ı	IAA a A C / I AA	ist iii Tuk	,,,		prigranction	ı	1 Out of	Jequence				

Work Order ID 11892	Work	Order	ID 1	118929
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118929

Page 3 May-06-14 8:07:18 AM Item ID: D3405-043 Accept *N900040100* Setup Start **Revision ID:** Stop Gh Lug **Item Name:** *16* **Start Qty:** 16.00 **Start Date:** 5/05/14 **Cust Item ID:** Required Date: 5/05/14 Reg'd Qty: 16.00 *16* **Customer:** Reference: Start Run Process Plan: Date: **Tooling:** Approvals: Date: Stop SPC (Y/N): Date: OC: Date: Reject Reject Insp. Sequence ID/ Operation Tool ID Tool # Plan Accept Set Up/ Stamp DAS **Work Center ID** Code Oty Qty Number Description **Run Hours** 160 QC9- Inspect visual per QSI004- Fusion Welds 0.00 24 : AUG 1 4 2014 9-89 *160* 0.00 Memo Quality Control DAS 170 QC5- Inspect part completeness to step on W/O 0.00 24 AUG 1 4 2014 9-89 *170* 0.00 OC Memo Quality Control 180 White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum 0.00 16 CR 14-68-16 *120* Powdercoat 0.00 Memo START TIME: Powder Coating **OVEN TEMPERATU** FINISH TIME:

DQA:			Date:			-				_				TRAGE
			<u>.</u> .			WORK C	ORDER NON	-CC	ONFO	RMANCE / L				AEROSPACE
QA Closed:			Date:							<u> </u>	W	ork Order up	date only	
Work Orde	er:					DISP	OSITION				AGAINST D	EPARTMENT	PROCESS	·
	-						Rework			Skid-tube	Crosstube]	Water Jet	Engineering
Part N	lo.						Scrap			Machining	Small Fab	-1	d. Eng. Coor.	Quality
NCR N	lo.					Suspected l	Use-as-is Jnapproved		Thern	noforming Large Fab	Finishing Composite	Rec/Stor	e/Packaging Supplier	Other
Root					Desc	ription of worl	order update	1	nitial	Ad	ction	Sign &		
Cause		Date	Step	Qty		or non-confo	rmance	Ch	ief Eng	Desc	cription	Date	Verification	QC Inspector
Design														
Doc/Data								1						
Equip/Tooling														
Handling/Pred Material		188	2 4 1	JUA										
l		1.11	17 , ,	QQA										
Operator Offset/Setup	\dashv							İ						
Process														
Supplier	-				:									
Training														
Transport			498 1	部人										
Unapproved										*				
	_							FAI	JLT CAT	regory			-	
Landir	ng G	iear				Gene	eral		:			<u>_</u>	_	_
		Bending				Bend			Folio/F	Program		Outside Dim	ensions	Pressure/Forced
		Centre No	ot Concei	ntric		BOM/Route		L	Grain		_	Over/Under	tolerance	Set-up
		Cracks				Broken/Dama	age/Defect		Hardwa	ire	<u> </u>	Part Incorre	├ -	Temperature/Cure
		Crimp/Kir	nk/Ripple	/Wave		Burrs			Inspect	ion Incomplete/l	Jnqualified	Part Lost/Mi	_	Weld
		Cuffs				Contamination	l		•	tions Incomplete		Part Moved		Wrong Stock Pulled
	\neg	Crushing	,			Countersink		<u></u>	ł -	gned/off center	· _	Positioned V		-
	-	Heat Trea			<u> </u>	Cut Too Short		<u></u>	Mislabe			Power Loss/	Surge	Other
	\neg	Inspection	•	Tube		Drawing		\vdash	Misread					
	\dashv	Marks/Ch				Drill Holes		<u>_</u>	Off-set					-
		Turning S			<u> </u>	Finish		_	4	Calibration			-	
		Wave/Tw	ist in Tub	e		Fit/Function		1	Out of 9	Sequence				

Work Ordo <i>May-06-14 8:07</i>		118929		*118	3929*							Page 4
Item ID: Revision ID:	D3405-04	13		Accept	*N900	<u>040</u>	100)*	Setup	Start		S1*
Item Name:	Gh Lug									Stop	*N	S2*
Start Date:	5/05/14	Start Qty: 16.00	*16*		Cust Item 1	ID:						
Required Date: Reference:	5/05/14	Req'd Qty: 16.00	*16*		Customer:							
Approvals:	Process	Plan:	Date:	Tooling:	D	ate:			Run	Start	*N	R1*
	QC:		Date:	SPC (Y/N):	D	ate:				Stop	*N	R2*
Sequence ID/ Work Center II	D	Operation Description		Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept	t Rej Qty		Reject Number	Insp. Stamp
190		QC3- Inspect Part Finish		0.00					_		~	10
1 QA QC Quality Control		Memo		0.00				16	_ &	(&	2P)	14/08/1
²⁰⁰		Identify as per dwg & Sto	ck LocationS}\$329	0.00				16	≎AS 06 9-89	•	AUG 1	g Zun/
Packaging		Memo		0.00				(
Packaging												
210		QC21- Final Inspection -	Work Order Release	0.00								,
210		Memo		0.00				^	7 CZ	- 14	J -80	<u> </u>

Quality Control

MLJ 14-08-18

DQA:			Date:						,					TO AC
						WORK ORDER NON-	-CC	ONFO	RMANCE / UPDATE			"		AEROSPACE
QA Closed:			Date:							W	ork Order up	date only		
						DISPOSITION			AGAINST	DE	PARTMENT	/PROCESS		
Work Ord	er:										l	آمد		F
D =t .						Rework			Skid-tube Crosstube	-	Dua	Water Jet	-	Engineering
Part N	NO.					Scrap			Machining Small Fab		1	d. Eng. Coor.	\dashv	Quality Other
NCR I	VI.O.					Use-as-is Suspected Unapproved		inerr	noforming Finishing Large Fab Composite		Rec/Stor	e/Packaging Supplier	\dashv	
NCN	٧٠.					Suspected Onapproved			Large Pab	· L	l	Jupplier		
Root					Desc	ription of work order update		nitial	Action		Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	n	QC Inspector
Design														
Doc/Data														
Equip/Tooling														
Handling/Pre						!			:					
Material														
Operator													l	
Offset/Setup														
Process											1			
Supplier							1							
Training									,					
Transport					ί,									
Unapproved			•											
							FAI	ULT CA	TEGORY					
Landi	ng G	Gear				General	_			_		,		
		Bending				Bend	_	Folio/F	Program		Outside Dim		-	Pressure/Forced
		Centre No	ot Concer	ntric		BOM/Route		Grain			Over/Under	tolerance		Set-up
		Cracks				Broken/Damage/Defect		Hardwa	are	L	Part Incorre	cí		Temperature/Cure
		Crimp/Kir	nk/Ripple	/Wave		Burrs	<u> </u>	Inspect	tion Incomplete/Unqualified		Part Lost/Mi	ssing	-	Weld
	-	Cuffs				Contamination	-	4	tions Incomplete/Unclear	_	Part Moved	l		Wrong Stock Pulled
		Crushing				Countersink		Misali	gned/off center		Positioned V			
		Heat Trea	it			Cut Too Short		Mislab	eled		Power Loss/	Surge		Other
		Inspection	n Strip in	Tube		Drawing		Misrea	d .					
		Marks/Ch				Drill Holes		Off-set					***	
		Turning S	equence			Finish		Out of	Calibration					
!		Wave/Tw	ist in Tub	e		Fit/Function		Out of	Sequence					

Page 1

Work Order ID: 118929

118929

Parent Item:

D3405-043

D3405-043

Parent Item Name: Gh Lug

Start Date: 5/05/14

Required Date: 5/05/14

Start Qty: 16.00

Required Qty: 16.00

Comments:

IPP A05.09.01New issueKJ/JLM

IPP B 09.01.28 Rev b dwg EC verified by: DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3404-1		Manufactured	No			100	Each	70.0000	1	16			
D3404-1	•								**	A	19-8	8-12	
	0.40	1.1		Location		Loc	<u>Oty</u>	Loc Code					
	13/2/	111 X16		WA001			70				_		
					110801 113798		30 40		_		-		*
M304S11GA		Purchased	No		113/70	150	sf	181.3000	0.154	<u>(3)</u>	_		
M304S11 304/316 0.125 Sheet	GA								**			J	m14-05

Location Loc Qty Loc Code 181.3 MAT020 122521 30 M128254 151.3

DQA:			Date:										
						WORK ORDER NON	-CC	ONFO	RMANCE / UP	DATE			AEROSPACE
QA Closed:			Date:							W	ork Order up	date only	
Work Ord	ar:					DISPOSITION				AGAINST DE	PARTMENT/	PROCESS	
WOIK OIG	=1.					Rework	1		Skid-tube	Crosstube]	Water Jet	Engineering
Part N	J۵					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality
1 41(1	10.			···_		Use-as-is	1 1		noforming	Finishing	4	e/Packaging	Other
NCR I	۱o.					Suspected Unapproved	1		Large Fab	Composite		Supplier	1
	•				_		1		• Ш				
Root					Desci	ription of work order update	Ī	nitial	Actio	on	Sign &		
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descri	ption	Date	Verification	QC Inspector
Design													
Doc/Data													
Equip/Tooling													
Handling/Pre													
Material													
Operator													
Offset/Setup													
Process													
Supplier													
Training													
Transport													
Unapproved					L				TECODY		<u>i.</u>		1
l = d:							FA	ULI CA	TEGORY				
Landi	ng (1				General Bend		leolio/s	Program	<u> </u>	Outside Dim	ensions	Pressure/Forced
		Bending Centre No	t Cancar	stric		BOM/Route	-	Grain	Flogram	<u> </u>	Over/Under	-	Set-up
		Cracks	or concer	itiic	-	Broken/Damage/Defect	\vdash	Hardwa	aro	<u> </u>	Part Incorred	 	Temperature/Cure
		Crimp/Kin	k/Rinnle	/\/\ave	-	Burrs	-	4	ion Incomplete/Und	nualified	Part Lost/Mi		Weld
		Cuffs	ik/ Mppie	, wave	-	Contamination	-	1	tions Incomplete/U	· —	Part Moved	-	Wrong Stock Pulled
		Crushing				Countersink	\vdash	4	gned/off center	_	Positioned V	∟ Vrong	
	 	Heat Trea	t		\vdash	Cut Too Short	_	Mislab	_	-	Power Loss/	_	Other
		Inspection		Tube	\vdash	Drawing	\vdash	Misrea		<u> </u>	_	·	<u> </u>
	_	Marks/Ch				Drill Holes		Off-set				<u> </u>	
		Turning S				Finish	-	4	Calibration				W
		Wave/Tw	•			Fit/Function		Out of	Sequence				

DART AEROSPACE LTD	Work Order:	118929
Description: GHW Bracket	Part Number:	D3405-3
Inspection Dwg: D3405 Rev: B		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article	Prototype
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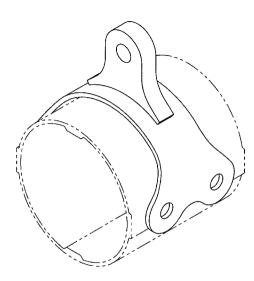
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.438	+0.006/-0.001	0.4424)		ν	Thmos
1.50	+/-0.030	1.503	_		ν	
1.750	+/-0.010	1.750	-		V	
R0.63	+/-0.030	0.634	_		RG	
3.00	+/-0.030	3.002,	_		V	
8.00	+/-0.030	8.006	_		¥	
6.751	+/-0.005	6.79			✓	
·			DAS 27			

			21		
Measured by:	JM	Audited by:	9-89	Prototype Approval:	N/A
Date:	14.05-10	Date:	14/5/12	Date:	N/A

A 06.09.01 New Issue P/O D3405-043 KJ/JLM	Approved	Revised by	Change	Date	Rev
B 00.05.04 Dimensions undete non Dura Boy D	11	KJ/JLM	New Issue P/O D3405-043	06.09.01	Α
B 09.05.04 Dimensions update per Dwg Rev. B KJ/DD FS/	Jul	KJ/DD +	Dimensions update per Dwg Rev. B	09.05.04	В

QTY. PART NUMBER DESCRIPTION х D3405-041 LUG ASSEMBLY D3405-043 2 x LUG ASSEMBLY 11 D3404-1 GHW LUG D3405-1 GHW BRACKET 12 D3405-3 GHW BRACKET 13





D3405-041 LUG ASSEMBLY (SKID TUBE SECTION SHOWN FOR REF ONLY)

WORK ORDER NO. 118929 MCT

D3405-043 LUG ASSEMBLY (SKID TUBE SECTION SHOWN FOR REF ONLY)

SHOP COPY

RETURN TO

ENGINEERING

UNCONTROLLED COPY

SUBJECT TO AMENDMENT WITHOUT NOTICE

1405-07

NOTES:
1) MATERIAL: N/A
2) FINISH: POWDER COAT ASSEMBLY WHITE (4.3.5.2) PER DART QSI 005 4.3
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3405-041" USING FINE POINT PERMANENT INK MARKER
7) WEIGHT: -041, 0.85 ibs
-043, 0.87 ibs

В	STAND FLAT P PREVE	DRAWING REDRAWN IN SOLIDWORKS WITH CURRENT STANDARDS AND TRANSFERED TO "9" SIZE BORDER FLAT PATTERNS FOR 1 & 3 INCREASED IN LENGTH TO PREVENT FOULING AT INST. (SEE PAR198). SHEETS 3 & 4 ZONE A6 4.120 DIM WAS 4.100.			08.09.19
Α	NEW ISSUE		PH	05.03.08	
REV.	DESCRIPTION		BY	DATE	
DESIGN PH DART AFROCE		CEL	7.0		

DESIGN PH		DART AEROSPACE LTD			
DRAWN	A.S	HAWKESBURY, ONTARIO, CANADA			
CHECKED	علم	DRAWING NO.	REV. B		
MFG. APPR.		D3405	SHEET 1 OF 4		
APPROVED IM TIT		TITLE SC			
DE APPR.		GHW LUG ASSEMBLY	NTS		
DATE 08.0	9.19	COPYRIGHT © 2005 BY DART AEROSPACE LTD THIS DOCUMENT IS PROMATE AND COMPONENTAL AND IS SUPPLED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMPONED OR COMMISCATED TO ANY OTHER PERSON WITHOUT			

